Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

TO AN EARLY PRIMROSE.

WRITTEN AT THE AGE OF 13 YEARS;

By Henry Kirke White.

Mild offspring of a dark and sullen sire!
Whose modest form, so delicately fine,
Was nurs'd in whirling storms
And cradled in the winds.

Thee, when young spring first question'd winter's sway,
And dar'd the sturdy blusterer to the fight,
Thee on this bank he threw
To mark his victory.

In this low vale the promise of the year,
Serene, thou openest to the nipping gale
Unnotic'd and alone,
Thy tender elegance.

So virtue blooms, brought forth amid the storms
Of chill adversity, in some lone walk
Of life, she rears her head
Obscure and unobserved:

While every bleaching breeze that on her blows,
Chastens her spotless purity of breast,
And hardens her to bear
Serene, the ills of life.

DICOVERIES AND IMPROVEMENTS IN ARTS, MANUFACTURES, AND AGRICULTURE.

Description of an Apparatus for collecting Gas from Coal, and of its use in lighting Manufactories and other large Buildings.—From Parks' Chemical Catechism.

CARBURETTED hydrogen gas, which is now employed in several parts of the kingdom for lighting large buildings, extensive manufactories, mines, &c., is procured in general from common pit coal by means of simple distillation. A variety of apparatus has been invented for this purpose, some of which are very complicated and difficult to be employed, and others are liable to accidents and explosions. The one which appears to have the greatest simplicity, and is at the same time perfectly safe in its application, may be thus described. The retort, within the furnace, is of cast iron; its larger end has an orifice of several inches diameter, for the admission of the coal and the withdrawing of the coak; which orifice is made to shut air-tight by means of an iron plug which screws within it; and to the smaller end of the retort a leaden pipe is affixed, in order to lengthen the apparatus and for the purpose of conveying the gas into the reservoir. This leaden pipe is generally bent into the form of an arch, to occasion more surface, and more effectually to cool the gas before it is delivered into the air-vessel or reservoir. The design of cooling the gas in this way is to occasion it to deposit the tar which always rises with it from the coal, and remains combined with it till it is somewhat reduced in temperature by passing along the leaden tubes. The two straight tubes passing from the extremities of the arch, and furnished with stop cocks, are designed to carry off this tar into a vessel placed beneath to receive it. If the tube connecting with the retort be a few feet in length, a part of the tar will run off by the first pipe, and in passing along the arched part of the tube, the gas will be further cooled, and more tar will be deposited*. The reservoir or receptacle for the gas is constructed on the principle of a common gasometer,

---

* The tube which rises nearly perpendicularly from the retort, and goes into the chimney, is designed to carry off the car,